

REMARKS/ARGUMENTS

This is in response to the Office Action dated September 18, 2009. Reconsideration and withdrawal of all claim rejections are earnestly solicited.

Claim 1 stands rejected under 35 U.S.C. Section 103(a) as being allegedly unpatentable over Glaser (U.S. 5,837,361), in view of Depauw (5,153,054), in view of Hartig (U.S. 5,557,462). This rejection is respectfully traversed for at least the following reasons.

Claim 1 is directed to a heat treated coated article comprising a coating supported by a glass substrate, the coating comprising, inter alia “a second layer comprising zinc oxide located over at least the first IR reflecting layer and the first dielectric layer; a second IR reflecting layer comprising silver located over and contacting the second layer comprising zinc oxide, the second IR reflecting layer comprising silver having a thickness greater than the first IR reflecting layer comprising silver; a layer consisting essentially of an oxide of NiCr located over and contacting the second IR reflecting layer; a third layer comprising zinc oxide located over and contacting the layer consisting essentially of the oxide of NiCr, the third layer comprising zinc oxide being 40-150 Å thick, the third layer comprising zinc oxide being thicker than the second layer comprising zinc oxide, and the layer consisting essentially of the oxide of NiCr being 20-45 Å thick.” The applied prior art references do not disclose or suggest these features.

First, Glaser does not disclose or suggest heat treating, as acknowledged in the instant Office Action at page 4, line 12. Though Depauw does discuss heat treating, Depauw discloses that the sacrificial metal oxide layer located between the IR reflecting layer and the layer comprising zinc oxide must be *thicker* if heat treatment is to be undergone. (Col. 8, lines 23-28 of Depauw). Depauw states that the metal oxide layer ought to be 5 nm – 12 nm, which is thicker than the range claimed in claim 1. (Col. 8, line 27 of Depauw). Thus, if the coating

taught by Glaser were modified based on Depauw's upper layer comprising zinc oxide, and heat treated, Depauw would require that the thickness of its sacrificial metal layer be increased.

Therefore, the claimed thickness of the layer consisting essentially of the oxide of NiCr, located above the IR reflecting layer comprising silver, would not be met by modified Glaser.

The teachings of a reference must be considered as a whole. The totality of the prior art must be considered, and proceeding contrary to accepted wisdom in the art is evidence of nonobviousness. *In re Hedges*, 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986) 2145 (X)(3). Thus, because Depauw discloses that if a layer stack comprising ZnO/Ag/metal layer/ZnO must have a thicker metal layer over the layer comprising silver if the coating undergoes heat treatment, this teaching must be considered when modifying Glaser's ZnO/Ag/NiCr layer stack. Thus, if that stack were modified based on the teaching of Depauw to include an additional layer comprising zinc oxide over the metal layer, *and* to be heat treated, then Glaser would also have to be modified to have a thicker metal layer above the layer comprising silver. If the coating of Glaser, including the NiCr layer (metal layer) disclosed by Glaser as above the IR reflecting layer, were modified based on Depauw, the NiCr layer (metal layer) would have to be between 5 and 12 nm thick (50 to 120 Å). Claim 1, on the other hand, requires that the layer consisting essentially of the oxide of NiCr be 20-45 Å thick. Accordingly, modified Glaser cannot meet the features of claim 1. Therefore, the alleged combination does not render obvious claim 1.

Moreover, claim 1 has been amended to recite "a third layer comprising zinc oxide located over and contacting the layer consisting essentially of the oxide of NiCr, the third layer comprising zinc oxide being 40-150 Å thick, the third layer comprising zinc oxide being thicker than the second layer comprising zinc oxide."

1. This means that the third layer comprising zinc oxide located over and contacting the layer consisting essentially of the oxide of NiCr is thicker than the second layer comprising zinc oxide, over which the second IR reflecting layer comprising silver is located and contacting. This amendment is supported by the example thicknesses in the instant specification. For example, in paragraphs [0034] and [0042] it can be seen that the third layer comprising zinc oxide (the one located over and contacting the layer consisting essentially of the oxide of NiCr) is *thicker* than the second layer comprising zinc oxide, over which the second IR reflecting layer comprising silver is located and contacting. The applied prior art does not disclose or suggest this feature. In fact, the applied prior art teaches directly away from this.

Glaser, as acknowledged in the Office Action, does not disclose or suggest a “layer comprising zinc oxide located over and contacting the layer consisting essentially of the oxide of NiCr, the third layer comprising zinc oxide being 40-150 Å thick.” Therefore, the Office Action turns to Depauw to cure this fundamental deficiency. However, though Depauw discloses layers comprising zinc oxide below and contacting an IR reflecting layer comprising silver, and above a metal layer that is over and contacting the IR reflecting layer comprising silver, Depauw cautions against the use of both layers of zinc oxide. (Col. 7, lines 21-50). Depauw is replete with warnings about using too much zinc oxide in a layer system, and states that its overall presence should be minimized. But Depauw explicitly states that if zinc oxide is used below the IR reflecting layer *and* above the (sacrificial) metal layer, it is important that the layers’ thicknesses are the same. Therefore, claim 1 has been modified to recite that the upper (third) layer comprising zinc oxide is thicker than the lower (second) layer comprising zinc oxide. This feature is directly taught away from by the prior art, and is supported by the instant specification.

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Therefore, at least due to this present amendment, the applied prior art cannot render obvious claim 1.

Based on the foregoing, it is respectfully submitted that all claims are in condition for allowance. Reconsideration and withdrawal of all claim rejections are earnestly solicited. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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